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PAGE: 1

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/167,628

DATE: 02/16/94  
TIME: 13:53:25

INPUT SET: S866.raw

SEQUENCE LISTING

1 (1) General Information:

2 (i) APPLICANT: Grotendorst, Gary R.  
3 Bradham Jr., Douglas M.,

4 (ii) TITLE OF INVENTION: CONNECTIVE TISSUE GROWTH FACTOR

5 (iii) NUMBER OF SEQUENCES: 2

6 (iv) CORRESPONDENCE ADDRESS:

7 (A) ADDRESSEE: Spensley Horn Jubas & Lubitz  
8 (B) STREET: 4225 Executive Square, Suite 1400  
9 (C) CITY: La Jolla  
10 (D) STATE: CA  
11 (E) COUNTRY: US  
12 (F) ZIP: 92037

13 (v) COMPUTER READABLE FORM:

14 (A) MEDIUM TYPE: Floppy disk  
15 (B) COMPUTER: IBM PC compatible  
16 (C) OPERATING SYSTEM: PC-DOS/MS-DOS  
17 (D) SOFTWARE: PatentIn Release #1.0, Version #1.25

18 (vi) CURRENT APPLICATION DATA:

19 (A) APPLICATION NUMBER: US/08/167,628  
20 (B) FILING DATE:  
21 (C) CLASSIFICATION:

22 (vii) PRIOR APPLICATION DATA:

23 (A) APPLICATION NUMBER: US/07/752,427  
24 (B) FILING DATE:

25 (viii) ATTORNEY/AGENT INFORMATION:

26 (A) NAME: Wetherell, Jr. Ph.D., John W.  
27 (B) REGISTRATION NUMBER: 31,678  
28 (C) REFERENCE/DOCKET NUMBER: PD-1294

29 (ix) TELECOMMUNICATION INFORMATION:

30 (A) TELEPHONE: 619-455-5100  
31 (B) TELEFAX: 619-455-5110

32 (2) INFORMATION FOR SEQ ID NO:1:

33 (i) SEQUENCE CHARACTERISTICS:

34 (A) LENGTH: 2075 base pairs  
35 (B) TYPE: nucleic acid  
36 (C) STRANDEDNESS: single  
37 (D) TOPOLOGY: linear

ENTERED

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PATENT APPLICATION US/08/167,628DATE: 02/16/94  
TIME: 13:53:36

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52  
53       (ii) MOLECULE TYPE: cDNA  
54  
55  
56       (vii) IMMEDIATE SOURCE:  
57           (B) CLONE: DB60R32  
58  
59       (ix) FEATURE:  
60           (A) NAME/KEY: CDS  
61           (B) LOCATION: 130..1177  
62  
63  
64       (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:  
65  
66 CCCGGCCGAC AGCCCCGAGA CGACAGCCCG GCGCGTCCCG GTCCCCACCT CCGACCACCG       60  
67  
68 CCAGCGCTCC AGGCCCCGCG CTCCCCGCTC GCCGCCACCG CGCCCTCCGC TCCGCCCGCA       120  
69  
70 GTGCCAACC ATG ACC GCC GCC AGT ATG GGC CCC GTC CGC GTC GCC TTC       168  
71       Met Thr Ala Ala Ser Met Gly Pro Val Arg Val Ala Phe  
72           1               5                           10  
73  
74 GTG GTC CTC CTC GCC CTC TGC AGC CGG CCG GCC GTC GGC CAG AAC TGC       216  
75 Val Val Leu Leu Ala Leu Cys Ser Arg Pro Ala Val Gly Gln Asn Cys  
76       15               20                       25  
77  
78 AGC GGG CCG TGC CGG TGC CCG GAC GAG CCG GCG CCG CGC TGC CCG GCG       264  
79 Ser Gly Pro Cys Arg Cys Pro Asp Glu Pro Ala Pro Arg Cys Pro Ala  
80       30               35                       40                       45  
81  
82 GGC GTG AGC CTC GTG CTG GAC GGC TGC GGC TGC CGC GTC TGC GCC       312  
83 Gly Val Ser Leu Val Leu Asp Gly Cys Gly Cys Cys Arg Val Cys Ala  
84       50               55                       60  
85  
86 AAG CAG CTG GCC GAG CTG TGC ACC GAG CGC GAC CCC TGC GAC CCG CAC       360  
87 Lys Gln Leu Gly Glu Leu Cys Thr Glu Arg Asp Pro Cys Asp Pro His  
88       65               70                       75  
89  
90 AAG GGC CTC TTC TGT GAC TTC GGC TCC CCG GCC AAC CGC AAG ATC GGC       408  
91 Lys Gly Leu Phe Cys Asp Phe Gly Ser Pro Ala Asn Arg Lys Ile Gly  
92       80               85                       90  
93  
94 GTG TGC ACC GCC AAA GAT GGT GCT CCC TGC ATC TTC GGT GGT ACG GTG       456  
95 Val Cys Thr Ala Lys Asp Gly Ala Pro Cys Ile Phe Gly Gly Thr Val  
96       95               100                      105  
97  
98 TAC CGC AGC GGA GAG TCC TTC CAG AGC AGC TGC AAG TAC CAG TGC ACG       504  
99 Tyr Arg Ser Gly Glu Ser Phe Gln Ser Ser Cys Lys Tyr Gln Cys Thr  
100      110              115                      120                      125  
101  
102 TGC CTG GAC GGG GCG GTG GGC TGC ATG CCC CTG TGC AGC ATG GAC GTT       552

**RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/167,628**

 DATE: 02/16/94  
 TIME: 13:53:51
**INPUT SET: S866.raw**

103	Cys Leu Asp Gly Ala Val Gly Cys Met Pro Leu Cys Ser Met Asp Val		
104	130	135	140
105			
106	CGT CTG CCC AGC CCT GAC TGC CCC TTC CCG AGG AGG GTC AAG CTG CCC	600	
107	Arg Leu Pro Ser Pro Asp Cys Pro Phe Pro Arg Arg Val Lys Leu Pro		
108	145	150	155
109			
110	GGG AAA TGC TGC GAG GAG TGG GTG TGT GAC GAG CCC AAG GAC CAA ACC	648	
111	Gly Lys Cys Cys Glu Glu Trp Val Cys Asp Glu Pro Lys Asp Gln Thr		
112	160	165	170
113			
114	GTG GTT GGG CCT GCC CTC GCG GCT TAC CGA CTG GAA GAC ACG TTT GGC	696	
115	Val Val Gly Pro Ala Leu Ala Tyr Arg Leu Glu Asp Thr Phe Gly		
116	175	180	185
117			
118	CCA GAC CCA ACT ATG ATT AGA GCC AAC TGC CTG GTC CAG ACC ACA GAG	744	
119	Pro Asp Pro Thr Met Ile Arg Ala Asn Cys Leu Val Gln Thr Thr Glu		
120	190	195	200
121			205
122	TGG AGC GCC TGT TCC AAG ACC TGT GGG ATG GGC ATC TCC ACC CGG GTT	792	
123	Trp Ser Ala Cys Ser Lys Thr Cys Gly Met Gly Ile Ser Thr Arg Val		
124	210	215	220
125			
126	ACC AAT GAC AAC GCC TCC TGC AGG CTA GAG AAG CAG AGC CGC CTG TGC	840	
127	Thr Asn Asp Asn Ala Ser Cys Arg Leu Glu Lys Gln Ser Arg Leu Cys		
128	225	230	235
129			
130	ATG GTC AGG CCT TGC GAA GCT GAC CTG GAA GAG AAC ATT AAG AAG GGC	888	
131	Met Val Arg Pro Cys Glu Ala Asp Leu Glu Glu Asn Ile Lys Lys Gly		
132	240	245	250
133			
134	AAA AAG TGC ATC CGT ACT CCC AAA ATC TCC AAG CCT ATC AAG TTT GAG	936	
135	Lys Lys Cys Ile Arg Thr Pro Lys Ile Ser Lys Pro Ile Lys Phe Glu		
136	255	260	265
137			
138	CTT TCT GGC TGC ACC AGC ATG AAG ACA TAC CGA GCT AAA TTC TGT GGA	984	
139	Leu Ser Gly Cys Thr Ser Met Lys Thr Tyr Arg Ala Lys Phe Cys Gly		
140	270	275	280
141			285
142	GTA TGT ACC GAC GGC CGA TGC TGC ACC CCC CAC AGA ACC ACC ACC CTG	1032	
143	Val Cys Thr Asp Gly Arg Cys Cys Thr Pro His Arg Thr Thr Leu		
144	290	295	300
145			
146	CCG GTG GAG TTC AAG TGC CCT GAC GGC GAG GTC ATG AAG AAG AAC ATG	1080	
147	Pro Val Glu Phe Lys Cys Pro Asp Gly Glu Val Met Lys Lys Asn Met		
148	305	310	315
149			
150	ATG TTC ATC AAG ACC TGT GCC TGC CAT TAC AAC TGT CCC GGA GAC AAT	1128	
151	Met Phe Ile Lys Thr Cys Ala Cys His Tyr Asn Cys Pro Gly Asp Asn		
152	320	325	330
153			

**RAW SEQUENCE LISTING  
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154	GAC ATC TTT GAA TCG CTG TAC TAC AGG AAG ATG TAC GGA GAC ATG GCA T	1177
155	Asp Ile Phe Glu Ser Leu Tyr Tyr Arg Lys Met Tyr Gly Asp Met Ala	
156	335 340 345	
157		
158	GAAGCCAGAG AGTGAGAGAC ATTAACATCAT TAGACTGGAA CTTGAACCTGA TTCACATCTC	1237
159		
160	ATTTTCCGT AAAAATGATT TCAGTAGCAC AAGTTATTAA AATCTGTTT TCTAACTGGG	1297
161		
162	GGAAAAGATT CCCACCCAAT TCAAAACATT GTGCCATGTC AAACAAATAG TCTATCTTCC	1357
163		
164	CCAGACACTG GTTTGAAGAA TGTTAAGACT TGACAGTGGAA ACTACATTAG TACACAGCAC	1417
165		
166	CAGAATGTAT ATTAAGGTGT GGCTTAGGA GCAGTGGGAG GGTACCGGCC CGGTTAGTAT	1477
167		
168	CATCAGATCG ACTCTTATAC GAGTAATATG CCTGCTATTT GAAGTGTAAAT TGAGAAGGAA	1537
169		
170	AATTTAGCG TGCTCACTGA CCTGCCTGTA GCCCCAGTGA CAGCTAGGAT GTGCATTCTC	1597
171		
172	CAGCCATCAA GAGACTGAGT CAAGTTGTTG CTTAAGTCAG AACAGCAGAC TCAGCTCTGA	1657
173		
174	CATTCTGATT CGAATGACAC TGTCAGGAA TCGGAATCCT GTGATTAGA CTGGACAGCT	1717
175		
176	TGTGGCAAGT GAATTGCCT GTAACAAGCC AGATTTTTA AAATTTATAT TGTAAATATT	1777
177		
178	GTGTGTGTGT GTGTGTGTGT ATATATATAT ATATATGTAC AGTTATCTAA GTTAATTAA	1837
179		
180	AGTTGTTGT GCCTTTTAT TTTGTTTT AATGCTTGA TATTCAATG TTAGCCTCAA	1897
181		
182	TTTCTGAACA CCATAGGTAG AATGTAAAGC TTGTCTGATC GTTCAAAGCA TGAAATGGAT	1957
183		
184	ACTTATATGG AAATTCTGCT CAGATAGAAT GACAGTCCGT CAAAACAGAT TGTTGCAAA	2017
185		
186	GGGGAGGCAT CAGTGTCTTG GCAGGCTGAT TTCTAGGTAG GAAATGTGGT AGCTCACG	2075
187		
188		
189	(2) INFORMATION FOR SEQ ID NO:2:	
190		
191	(i) SEQUENCE CHARACTERISTICS:	
192	(A) LENGTH: 349 amino acids	
193	(B) TYPE: amino acid	
194	(D) TOPOLOGY: linear	
195		
196	(ii) MOLECULE TYPE: protein	
197		
198	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:	
199		
200	Met Thr Ala Ala Ser Met Gly Pro Val Arg Val Ala Phe Val Val Leu	
201	1 5 10 15	
202		
203	Leu Ala Leu Cys Ser Arg Pro Ala Val Gly Gln Asn Cys Ser Gly Pro	
204	20 25 30	

Met Thr Ala Ala Ser Met Gly Pro Val Arg Val Ala Phe Val Val Leu

1 5 10 15

Leu Ala Leu Cys Ser Arg Pro Ala Val Gly Gln Asn Cys Ser Gly Pro

20 25 30

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205  
206 Cys Arg Cys Pro Asp Glu Pro Ala Pro Arg Cys Pro Ala Gly Val Ser  
207 35 40 45  
208  
209 Leu Val Leu Asp Gly Cys Gly Cys Cys Arg Val Cys Ala Lys Gln Leu  
210 50 55 60  
211  
212 Gly Glu Leu Cys Thr Glu Arg Asp Pro Cys Asp Pro His Lys Gly Leu  
213 65 70 75 80  
214  
215 Phe Cys Asp Phe Gly Ser Pro Ala Asn Arg Lys Ile Gly Val Cys Thr  
216 85 90 95  
217  
218 Ala Lys Asp Gly Ala Pro Cys Ile Phe Gly Gly Thr Val Tyr Arg Ser  
219 100 105 110  
220  
221 Gly Glu Ser Phe Gln Ser Ser Cys Lys Tyr Gln Cys Thr Cys Leu Asp  
222 115 120 125  
223  
224 Gly Ala Val Gly Cys Met Pro Leu Cys Ser Met Asp Val Arg Leu Pro  
225 130 135 140  
226  
227 Ser Pro Asp Cys Pro Phe Pro Arg Arg Val Lys Leu Pro Gly Lys Cys  
228 145 150 155 160  
229  
230 Cys Glu Glu Trp Val Cys Asp Glu Pro Lys Asp Gln Thr Val Val Gly  
231 165 170 175  
232  
233 Pro Ala Leu Ala Ala Tyr Arg Leu Glu Asp Thr Phe Gly Pro Asp Pro  
234 180 185 190  
235  
236 Thr Met Ile Arg Ala Asn Cys Leu Val Gln Thr Thr Glu Trp Ser Ala  
237 195 200 205  
238  
239 Cys Ser Lys Thr Cys Gly Met Gly Ile Ser Thr Arg Val Thr Asn Asp  
240 210 215 220  
241  
242 Asn Ala Ser Cys Arg Leu Glu Lys Gln Ser Arg Leu Cys Met Val Arg  
243 225 230 235 240  
244  
245 Pro Cys Glu Ala Asp Leu Glu Glu Asn Ile Lys Lys Gly Lys Lys Cys  
246 245 250 255  
247  
248 Ile Arg Thr Pro Lys Ile Ser Lys Pro Ile Lys Phe Glu Leu Ser Gly  
249 260 265 270  
250  
251 Cys Thr Ser Met Lys Thr Tyr Arg Ala Lys Phe Cys Gly Val Cys Thr  
252 275 280 285  
253  
254 Asp Gly Arg Cys Cys Thr Pro His Arg Thr Thr Thr Leu Pro Val Glu  
255 290 295 300

**RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/167,628**DATE: 02/16/94  
TIME: 13:54:35***INPUT SET: S866.raw***

256  
257 Phe Lys Cys Pro Asp Gly Glu Val Met Lys Lys Asn Met Met Phe Ile  
258 305 310 315 320  
259  
260 Lys Thr Cys Ala Cys His Tyr Asn Cys Pro Gly Asp Asn Asp Ile Phe  
261 325 330 335  
262  
263 Glu Ser Leu Tyr Tyr Arg Lys Met Tyr Gly Asp Met Ala  
264 340 345  
265

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**SEQUENCE VERIFICATION REPORT  
PATENT APPLICATION US/08/167,628**

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***INPUT SET: S866.raw***

Line

Error

Original Text

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**SEQUENCE MISSING ITEM REPORT  
PATENT APPLICATION US/08/167,628**

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***INPUT SET: S866.raw***

**<< THERE ARE NO ITEMS MISSING >>**

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**SEQUENCE CORRECTION REPORT  
PATENT APPLICATION US/08/167,628**

DATE: 02/16/94  
TIME: 13:54:39

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Original Text

Corrected Text